

 VERMONT DEPARTMENT OF HEALTH	VERMONT DEPARTMENT OF HEALTH LABORATORY 195 COLCHESTER AVENUE, P. O. BOX # 1125 BURLINGTON, VT 05402-1125 (802) 863-7335 OR (800) 660-9997 (VT ONLY)
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Water Test Order Form Supplement
[Supplement and Kit Descriptions are Subject to Change]

Test Kit Descriptions 2007
Effective March 16, 2007

IOC's
INORGANIC CHEMICALS

IOC samples on page one are accepted Monday – Friday within 48 hours of sampling. Samples must be delivered or mailed to the laboratory. Please keep samples cool. Cyanide and Sulfate tests are no longer offered. Estimated turnaround time for test results is 21 calendar days from the time of sample receipt.

TRACE METALS AND FLUORIDE -KIT IA

(Regulated Water Systems and Homeowners)

Cost: \$125

- | | |
|---------------|--|
| 1. Antimony | 12. Mercury |
| 2. Arsenic | 13. Molybdenum |
| 3. Barium | 14. Nickel |
| 4. Beryllium | 15. Selenium |
| 5. Cadmium | 16. Thallium |
| 6. Chromium | 17. Uranium |
| 7. Cobalt | 18. Vanadium |
| 8. Copper | 19. Zinc |
| 9. Iron | 20. Fluoride |
| 10. Lead | Mercury may be delayed for water with high turbidity |
| 11. Manganese | and also will be tested at the DEC Laboratory. |

LEAD/COPPER- Kit IB

Cost: \$ 20

1. Lead
2. Copper

INORGANIC CHEMICALS- KIT C (Homeowner)

Cost: \$ 90

- | | |
|-------------|--------------|
| 1. Arsenic | 6. Lead |
| 2. Chloride | 7. Manganese |
| 3. Copper | 8. Nitrate |
| 4. Hardness | 9. Sodium |
| 5. Iron | 10. Uranium |

IOC's INORGANIC CHEMICALS (Cont.)

INORGANIC CHEMICALS- KIT ID and Nitrite samples are accepted Monday – Thursday, 7:45 a.m. – 4:30 p.m. and Friday, 7:45 a.m. – 12 noon. Samples must be received within 24 hours of sampling due to odor and nitrite tests.

INORGANIC CHEMICALS- KIT ID Required for some permits and water supplies. Cost: \$ 90

- | | |
|---------------|------------|
| 1. Arsenic | 6. Nitrate |
| 2. Chloride | 7. Odor |
| 3. Iron | 8. Sodium |
| 4. Manganese | 9. Uranium |
| 5. Nitrite*** | 10. pH |

Coliform testing not included in this kit.

***** Special Request: Nitrite**

Cost: \$ 12

Nitrite sample should be received by the laboratory within 24 hours of sampling and during the following hours: Monday – Thursday, 7:45 a.m. – 4:30 p.m. and Friday, 7:45 a.m. – 12 noon. Estimated turnaround time for test results is 21 calendar days from the time of sample receipt.

Note: Oxidizers such as chlorine interfere with testing for Nitrite.

***Nitrate:** Monitoring required annually for regulated systems.

Testing for the inorganic chemicals listed below is available upon request. Other individual inorganic chemical testing is also available. Please call the laboratory.

	<u>COST</u>
Alkalinity	\$12
Calcium as calcium carbonate	\$12
Chlorine residual	\$12
Chloride	\$12
Conductivity	\$12
Fluoride	\$12
Hardness	\$12
Lead	\$12
Nitrate *	\$12
Nitrite ***	\$12
Sodium	\$12
Total Dissolved Solids	\$12
Turbidity	\$12
Odor	\$10
pH	\$10

ORGANIC CHEMICAL TESTING

VOC'S VOLATILE ORGANIC COMPOUNDS

VOLATILE ORGANIC CHEMICALS- KIT 0A (EPA Method 524.2)

Cost: \$120

NOTE: Kit OA tests for all regulated and unregulated VOC's.

VOC samples are accepted Monday – Friday within 48 hours of sampling. Samples must be delivered or mailed to the laboratory. Please keep samples cool. Estimated turnaround time for sample results is 21 calendar days from the time of sample receipt.

1	Methyl tert-butyl ether	30	2,2-Dichloropropane
2	Benzene	31	1,3-Dichloropropane
3	Bromobenzene	32	1,1-Dichloropropene
4	Bromochloromethane	33	cis-1,3-Dichloropropene
5	Bromodichloromethane	34	trans-1,3-Dichloropropene
6	Bromoform	35	Ethylbenzene
7	Bromomethane	36	Fluorotrichloromethane
8	n-Butylbenzene	37	Hexachlorobutadiene
9	sec-Butylbenzene	38	Isopropylbenzene
10	tert-Butylbenzene	39	p-Isopropyltoluene
11	Carbon tetrachloride	40	Methylene chloride (Dichloromethane)
12	Chlorobenzene	41	Naphthalene
13	Chlorodibromomethane	42	n-Propylbenzene
14	Chloroethane	43	Styrene
15	Chloroform	44	1,1,1,2-Tetrachloroethane
16	Chloromethane	45	1,1,2,2-Tetrachloroethane
17	2-Chlorotoluene	46	Tetrachloroethylene
18	4-Chlorotoluene	47	Toluene
19	Dibromomethane	48	1,2,3-Trichlorobenzene
20	1,3-Dichlorobenzene	49	1,2,4-Trichlorobenzene
21	1,2-Dichlorobenzene	50	1,1,1-Trichloroethane
22	1,4-Dichlorobenzene	51	1,1,2-Trichloroethane
23	Dichlorodifluoromethane	52	Trichloroethylene
24	1,1-Dichloroethane	53	1,2,3-Trichloropropane
25	1,2-Dichloroethane	54	1,2,4-Trimethylbenzene
26	1,1-Dichloroethene	55	1,3,5-Trimethylbenzene
27	trans-1,2-Dichloroethene	56	Vinyl chloride
28	cis-1,2-Dichloroethene	57	m+p-Xylene
29	1,2-Dichloropropane	58	o-Xylene

ORGANIC CHEMICAL TESTING (cont.)

Disinfection By-Products

TRICHALOMETHANES-KIT OB (EPA METHOD 524.2)

Cost: \$120

THM samples are accepted Monday – Friday within 48 hours of sampling. Samples must be delivered or mailed to the laboratory. Please keep samples cool. Estimated turnaround time for sample results is 21 calendar days from the time of sample receipt.

Note: HALOACETIC-KIT OK may need to be sampled at the same time and at the same location as THM sampling occurs.

1. Chloroform
2. Dibromochloromethane
3. Bromodichloromethane
4. Bromoform

Note: Reported as total trihalomethanes.

HALOACETIC ACIDS - Kit OK (EPA METHOD 552.2)

Cost: \$ 150

Haloacetic Acid (Kit OK) Testing in the year 2007. **Samples will be accepted the first full week of each month.** The kits must be ordered in advance and will be sent out about 1 week prior (at a minimum) to the scheduled sample receipt dates.

Please order approximately one month before compliance monitoring is needed.

Note: TRIHALOMETHANES-KIT OB, may need to be sampled at the same time and at the same location as haloacetic acid sampling occurs.

Samples must be delivered or mailed to the laboratory during scheduled sample receipt dates. Please keep samples cool. Estimated turnaround time for sample results is 21 calendar days from the time of sample receipt.

1. Chloroacetic Acid
2. Bromoacetic Acid
3. Dichloroacetic Acid
4. Trichloroacetic Acid
5. Dibromoacetic Acid

Note: Also reported as total Haloacetic acids.

ORGANIC CHEMICAL TESTING (cont.)

SOC's
SYNTHETIC ORGANIC CHEMICALS
Kits OL, OE, OH and OG

Testing in the year 2007: **Samples will be accepted the second full week of each month.**
The kits must be ordered in advance and will be sent out about 1 week prior to scheduled sample receipt dates.

Please order approximately one month before compliance monitoring is needed.

Samples must be delivered or mailed to the laboratory. Please keep samples cool. Estimated turnaround time for sample results is 21 calendar days from the time of sample receipt.

HERBICIDES in WATER – KIT OE – EPA Method 515.4

Cost: \$200

1. Dalpon
2. Dicamba
3. Dinoseb
4. Pentachlorophenol
5. Picloram
6. 2,4-D
7. 2,4,5-TP (silvex)

CARBAMATE PESTICIDES – KIT OG (EPA METHOD 531.2)

Cost: \$100

- | | |
|-----------------------|-------------------------|
| 1. Aldicarb | 6. Aldicarb sulfone |
| 2. Aldicarb Sulfoxide | 7. Baygon (Propoxur) |
| 3. Carbaryl | 8. Carbofuran |
| 4. Methiocarb | 9. Methomyl |
| 5. Oxamyl (Vydate) | 10. 3-Hydroxycarbofuran |

EDB/DBCP-KIT OH (EPA METHOD 504.1)

Cost: \$ 80

1. Ethylene dibromide(EDB)
2. Dibromochloropropane(DBCP)

ORGANIC CHEMICAL TESTING (cont.)

SOC's
SYNTHETIC ORGANIC CHEMICALS (cont.)

Semi volatile Chemicals and Pesticides - Kit OL (EPA METHOD 525.2)

Cost: \$250

Testing in the year 2007: **Samples will be accepted the second full week of each month.** The kits must be ordered in advance and will be sent out about 1 week prior to scheduled sample receipt dates.

Please order approximately one month before compliance monitoring is needed.

Samples must be delivered to the laboratory. Please keep samples cool. Estimated turnaround time for sample results is 21 calendar days from the time of sample receipt.

Compounds in method:

Aldrin
alpha-Chlordane
gamma-BHC (lindane)
Heptachlor
Methoxychlor
Simazine
Bis-(2-ethylhexyl) phthalate
Hexachlorocyclopentadiene
2,4,5-Trichlorobiphenyl
2,2',3',4,6-Pentachlorobiphenyl
Benzo[a]pyrene
Propachlor
Metolachlor
Dieldrin

di-n-Butyl phthalate
Dimethyl phthalate
2,3-Dichlorobiphenyl
2,2',3,3',4,4',6-Heptachlorobiphenyl
Anthracene
Benzo[b]fluoranthene
Benzo[ghi]perylene
Dibenz[a,h]anthracene
Indeno[1,2,3-cd]pyrene
Pyrene

2,4-Dinitrotoluene
Acetochlor
EPTC (Torbin, Stauffer, R1608)
DCPA (Dacthal)

Alachlor
Atrazine
gamma-Chlordane
Endrin
Heptachlor epoxide-isomer B
trans-Nonachlor
Bis-(2-ethylhexyl) adipate
Hexachlorobenzene
Pentachlorophenol
2,2',4,4'-Tetrachlorobiphenyl
2,2',3,3',4,5',6,6'-Octachlorobiphenyl
Toxaphene
Metribuzin
Butachlor
Total chlordane

Butyl benzyl phthalate
Diethyl phthalate
2-Chlorobiphenyl
2,2',4,4',5,6'-Hexachlorobiphenyl
Acenaphthylene
Benz[a]anthracene
Benzo[k]fluoranthene
Chrysene
Fluorene
Phenanthrene

2,6-Dinitrotoluene
4,4'-DDE (Dilene, Rhothanel)
Molinate
Terbacil

RADIONUCLIDES

Samples are accepted Monday – Friday within 5 days of sampling, * except Kit RC, which must be received within 48 hours. Estimated turnaround times are listed below for each method.

GROSS ALPHA IN WATER- KIT RA (EPA METHOD 900.00 or EERF 00-02) COST: \$ 45

Test for gross alpha in water. [Turnaround time – approximately 14 workdays]

GAMMA EMITTING RADIONUCLIDES- KIT RB (EPA METHOD 901.1) COST: \$ 55

Gamma spectrometric analysis of drinking water. [Turnaround time – approximately 10 workdays]

***RADON-222-KIT RC (SM 7500 Rn) COST: \$ 25**

Test for radon-222 in water. [Turnaround time – approximately 7-10 workdays]

RADON IN AIR-KIT RF (EPA METHOD 402-R-92-004) COST: \$ 25

Test for radon-222 in air – 2 to 7 day sample. [Turnaround time – approximately 7 workdays]

RADON IN AIR-KIT RG (EPA METHOD 402-R-92-004) COST: \$ 25

Test for radon- 222 in air – 1 to 3 month sample. [Turnaround time – approximately 7 workdays]

RADON IN AIR-KIT RH (EPA METHOD 402-R-92-004) COST: \$ 25

Test for radon-222 in air – 3 to 12 month sample. [Turnaround time – approximately 7 workdays]

RADIUM-226 & RADIUM-228 IN WATER-KIT RO (SM 7500-RaB) & (EERF Ra-05) COST:\$150

Test for radium-226 & radium -228 in water. [Turnaround time – approximately 45 workdays]

URANIUM IN WATER – KIT RU (EPA METHOD 200.8) COST: \$ 25

Test for Uranium in water reported as mass. [Turnaround time – approximately 21 workdays]

MICROBIOLOGICAL TESTING

Samples are accepted Monday – Friday (7:45 a.m. – 4:30 p.m.) within 30 hours of sampling. Please keep samples cool. Results for samples received by 4 p.m. are mailed the following workday.

COLIFORM BACTERIA- <u>KIT A</u> (Homeowner)	COST: \$ 14
COLIFORM BACTERIA- <u>KIT AA</u> (Regulated Water Systems)	COST: \$ 14
RECREATIONAL WATER- <u>KIT B</u>	COST: \$ 15
ENUMERATION OF TOTAL COLIFORM AND <i>Escherichia coli</i> (<i>E .coli</i>) In drinking water- <u>KIT NU</u>	COST: \$ 15

SPECIAL REQUEST: HETEROTROPHIC PLATE COUNT- KIT HP COST: \$ 15

Samples are only accepted Monday – Thursday (7:45 a.m. – 3:00 p.m) and within 24 hours of sampling. Please keep the samples cool. Estimated turnaround time is up to 4 calendar days.

GENERAL INFORMATION

For a complete listing of laboratories certified within the state of Vermont, please contact Vermont Department of Health Laboratory at (800) 660-9997 in state or (802) 863-7335. For website, click on www.healthvermont.gov.

For a listing of laboratories that are accepted by Department of Environmental Conservation, Water Supply Division, please call (800) 823-6500 in state or (802) 241-3400.

Records relating to water testing are public. Public records may be used for statistical purposes, and may be released upon request in writing, pursuant to Vermont access to public document law (1 VSA § 315 – 320).